

REMARKS

The Office Action dated August 10, 2007, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this Amendment, claim 1 has been amended. Support for the amendment to claim 1 can be found on at least page 12, lines 22-23 of the specification as originally filed. No new matter is presented. Claims 9, 11, 12, 14 and 15 were withdrawn pursuant to an Election of Species Requirement dated April 13, 2006. Accordingly, claims 1, 3, 6-8, 10 and 13 are respectfully submitted for consideration.

Allowable Subject Matter

The Applicants wish to thank the Examiner for indicating allowable subject matter in claims 6 and 7. Claims 6 and 7 were not rewritten in independent form as they depend from claim 1 which is allowable for the reasons submitted below.

Rejections Under 35 U.S.C. § 103

Claims 1, 3, 8 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,591,093 to Asai et al. (hereinafter Asai) taken in view of U.S. Patent No. 2,198,135 to Strasburg et al. (hereinafter Strasburg) and further in view of European Publication No. 0013129 to Tresselt et al. (hereinafter Tresselt). The Office Action admitted that Asai does not disclose a predetermined inertial mass comprising an annular inertia mass element fixed in the concave portion wherein the inertia mass element is comprised of a laminate of annular plates formed of plural arc-shaped ring pieces bonded in a circumferential direction and in an axial direction. Strasburg and Tresselt are cited for curing this deficiency.

The Applicants traverse the rejection and respectfully submit that claims 1, 3, 8, and 10 recite subject matter that is neither disclosed nor suggested by the cited references.

Asai discloses a damper pulley comprising a central portion, a belt retaining portion and a rubber or elastic member therebetween. The central portion includes an axially extending tubular boss portion 10, a main portion 20, extending radially outwardly therefrom, and a flange 210 that is bent at about 90° from main portion 20 so as to extend axially from the outer periphery of the main portion 20. The boss 10, main portion 20 and flange 210 define a circular space S1 having a substantially U-shaped cross-section. A ring-shaped belt retaining portion 30, which has a generally U-shaped cross-section interior open space S2 reverse to the space S1, is formed from a thin metal plate. See column 1, lines 20-35 of Asai.

Strasburg discloses an engine vibration eliminator which contains within a chamber 3 a plurality of segmental weights 10 of any suitable metal separated from each other by a plurality of resilient spacers 11. The spacers also separate the weights from the outermost and innermost cylindrical surfaces 4 and 5, respectively. The spacers also perform the function of biasing the weight segments in the circumferential direction to hold the spacers apart from each other with a certain particular force.

Tresselt discloses a viscous vibration damper comprising a series of stacked welded discs 40, 42, 44 with the discs 44 having dimples 66 all stacked at the same position on each plate. The discs are formed by a suitable means such as a punch press with the dimples being similarly formed. After the discs are stacked together and

aligned using the dimples, they are clamped and welded together. Each of the discs is a perfect complete round annular plate.

With respect to claim 1, the Applicants respectfully submit that the combination of Asai, Strasburg and Tresselt fails to disclose or suggest the claimed features of the invention. Claim 1, as amended, recites, an inertia mass element comprised of a laminate of annular plates formed of contiguous plural arc-shaped ring pieces bonded in a circumferential direction and in an axial direction thereof and the contiguous plural arc-shaped pieces, each being formed from metal, comprise connecting means for connecting with adjoining plural arc-shaped ring pieces, the connecting means being a part of the ring piece. As acknowledged in the Office Action, Asai does not disclose an inertia mass element. The Office Action asserts that Strasburg teaches contiguous arc-shaped ring pieces and that Tresselt teaches a laminate of annular plates bonded in an axial direction.

The Applicants respectfully submit, however, that it would not have been obvious to one of ordinary skill in the art to combine Asai and Strasburg at least because Strasburg teaches away from contiguous plural arc-shaped ring pieces, each being formed from metal, as recited in claim 1. Specifically, Strasburg discloses,

...if instead of separated segments 10 there was provided a continuous metallic ring, there would be no dampening or ironing-out because the period of vibration transmitted into any one portion of such ring would automatically and instantaneously be transmitted into all the other parts of that ring. By providing the plurality of spaced segmental weights which are in no metallic contact with each other, the deflection of any one segment is substantially independent of the deflection of another segment, and the resilient spacers aid materially in absorbing a portion of the vibration transmitted to any one segment and prevent the full transmission

thereof to the next segment while permitting free and independent movement of each segment. (Emphasis added).

See page 2, right-hand column, lines 9-25 of Strasburg. As such, the arc-shaped members in Strasburg are independent and are not bonded elastically with the elastic members into a unit, which is not comparable to the claimed the contiguous plural arc-shaped ring pieces of the present invention, which are metal fitted to form a contiguous annular inertia mass element.

Under U.S. patent practice, an Applicant may rebut a *prima facie* case of obviousness by showing that the prior art teaches away from the claimed invention in any material aspect. See In re Peterson, 315 F. 3d 1325 at 1331, 65 USPQ 2d 1379, CAFC, 2003)). References that teach away from the claimed invention cannot serve as predicates for a *prima facie* case of obviousness. See In re Gurley, 27 F. 3d 551 at 553; 31 USPQ 2d 1130 (CAFC 1994)). In this case, Strasburg teaches away from contiguous plural arc-shaped ring pieces, each being formed from metal. As such, the reference is not properly combinable with Asai to cure the deficiencies identified in the Office Action.

Tresselt is cited for curing the deficiencies in the combination of Asai and Strasburg. However, Tresselt also does not disclose or suggest at least the feature of an inertia mass element comprised of a laminate of annular plates formed of contiguous plural arc-shaped ring pieces bonded in a circumferential direction and in an axial direction thereof and the contiguous plural arc-shaped pieces, each being formed from metal, comprising connecting means for connecting with adjoining plural arc-shaped

ring pieces, the connecting means being a part of the ring piece. As such, Tresselt fails to cure the deficiencies in Strasburg and Asai with respect to claim 1.

Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Asai in view of Strasburg and Tresselt and further in view of Critton et al. (U.S. Patent No. 4,872,369, "Critton"). Asai, Strasburg and Tresselt are cited for disclosing many of the claimed elements of the invention with the exception a resin being filled into the concave portion of the pulley body after the inertia mass is inserted. Critton is cited for curing this deficiency.

Critton discloses that in a torsional vibration damper having a roll spun housing that defines an annular working chamber 11, within which is housed a complementary inertia member ring 12, and with the axially open side of the housing closed by a closure 13. See column 2, lines 56–62 of Critton. After the closure 13 has been secured to the housing 10, filling the chamber 11 with viscous hydraulic damping fluid such as a suitable viscosity silicone may be effected. See column 4, lines 65–67 of Critton.

With respect to claim 13, the Applicants respectfully submit that the cited references do not disclose or suggest the features of the invention as recited in independent claim 1, and therefore, dependent claim 13. In particular, Critton does not disclose or suggest at least the feature of an inertia mass element comprised of a laminate of annular plates formed of contiguous plural arc-shaped ring pieces bonded in a circumferential direction and in an axial direction thereof and the contiguous plural arc-shaped pieces, each being formed from metal, comprising connecting means for connecting with adjoining plural arc-shaped ring pieces, the connecting means being a

part of the ring piece. As such, Critton fails to cure the deficiencies in Asai, Strasburg and Tresselt. Therefore, the combination of references fails to disclose or suggest the features of the invention as recited in claim 13.

To establish a *prima facie* case of obviousness, each and every feature of a rejected claim must be taught or suggested by the applied art of record. See MPEP § 2143.03.

In view of the above, the Applicants respectfully submit that Asai, Strasburg, Tresselt and Critton fail to support a *prima facie* case of obviousness for purposes of a rejection of claim 1 under 35 U.S.C. § 103. Accordingly, claim 1 is not rendered obvious in view of Asai, Strasburg, Tresselt and Critton and should be deemed allowable.

Conclusion

The Applicants respectfully submit that claim 1 is allowable. Claims 3, 6-8, 10 and 13 depend from claim 1. The Applicants further submit that these claims incorporate the patentable aspects thereof, and are therefore allowable for at least the same reasons as discussed above. Accordingly, the Applicants respectfully request withdrawal of the objections and rejections, allowance of claims 1, 3, 6-8, 10 and 13 and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper,

may be charged to counsel's Deposit Account No. 01-2300, **referencing Attorney Dkt.**

No. 029567-00003.

Respectfully submitted,



Rhonda L. Barton
Attorney for Applicants
Registration No. 47,271

27931

Customer No. 004372

ARENT FOX LLP

1050 Connecticut Avenue, N.W., Suite 400

Washington, D.C. 20036-5339

Tel: (202) 857-6000

Fax: (202) 638-4810

RLB/wbp